



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0381; Directorate Identifier 2013-NE-16-AD]

RIN 2120-AA64

Airworthiness Directives; Turbomeca S.A. Turboshift Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Turbomeca S.A. Arrius 2B1, 2B1A, 2B2, and 2K1 turboshaft engines. This proposed AD was prompted by in-flight shutdowns caused by interrupted fuel supply at the hydro-mechanical metering unit (HMU). This proposed AD would require initial and repetitive inspections of the HMU high pressure pump drive gear shaft splines, cleaning and inspections of the sleeve assembly splines, and replacement of the HMU if it fails inspection. We are proposing this AD to prevent in-flight shutdown and damage to the engine.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- Fax: 202-493-2251.

For service information identified in this AD, contact Turbomeca, S.A., 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 800-647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; email: frederick.zink@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0381; Directorate Identifier 2013-NE-16-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory,

economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may view the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2013-0082, dated April 2, 2013, referred to hereinafter as “the MCAI”, to correct an unsafe condition for the specified products. The MCAI states:

A number of in-flight shutdown occurrences have been reported for Arrius 2 engines. The results of the technical investigations concluded that these events were caused by deterioration of the splines on the high pressure (HP) / low pressure (LP) pump assembly drive shaft of the hydro-mechanical metering unit (HMU), which eventually interrupted the fuel supply to the engine.

This condition, if not detected and corrected, could lead to further cases of engine in-flight shutdown, possibly resulting in forced landing.

To address these occurrences, Turbomeca published Service Bulletin (SB) No. SB 319 73 2825, which provides inspection instructions. After that SB was issued, further similar occurrences prompted Turbomeca to perform a new assessment of the issue. As a result, it was determined that repetitive inspections of the HMU, including an additional inspection of the sleeve assembly, was

necessary to address the issue. Those instructions are provided in Turbomeca Mandatory SB (MSB) No. SB 319 73 2825 version G.

For the reasons described above, this AD requires repetitive inspections of drive gear shaft splines of the HP pump, and depending on findings, accomplishment of applicable corrective actions.

You may obtain further information by examining the MCAI in the AD docket. We are proposing this AD to prevent in-flight shutdown and damage to the engine.

Relevant Service Information

Turbomeca S.A. has issued Mandatory Service Bulletin No. SB 319 73 2825, Version G, dated January 24, 2013. The service information describes procedures for correcting the unsafe condition described in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of France, and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This proposed AD would require initial and repetitive inspections and cleaning of the HMU high pressure pump drive gear shaft splines, cleaning and inspections of the sleeve assembly splines, and replacement of the HMU if it fails inspection.

Costs of Compliance

We estimate that this proposed AD would affect 162 engines installed on helicopters of U.S. registry. We also estimate that it would take about one hour per engine to comply with this proposed AD. The average labor rate is \$85 per hour.

Required parts cost about \$753 per engine. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$135,756.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Turbomeca S.A.: Docket No. FAA-2013-0381; Directorate Identifier 2013-NE-16-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Turbomeca S.A. Arrius 2B1, 2B1A, 2B2, and 2K1 turboshaft engines.

(d) Reason

This AD was prompted by in-flight shutdowns caused by interrupted fuel supply at the hydro-mechanical metering unit (HMU). We are issuing this AD to prevent in-flight shutdown and damage to the engine.

(e) Actions and Compliance

Unless already done, do the following actions.

(f) Initial Visual Inspection for HMUs Not Previously Inspected

(1) On the effective date of this AD, for those HMUs that have not previously been inspected per Turbomeca Mandatory Service Bulletin (MSB) No. SB 319 73 2825, Version G, dated January 24, 2013, or earlier versions; perform an initial visual inspection of HMU aft splines of the high pressure pump for wear, corrosion, scaling, or cracks, and clean and inspect the sleeve assembly splines for wear, corrosion, scaling, or cracks, at the following:

(i) For HMUs that have accumulated more than 150 operating hours (OHs) since new or since last overhaul, within 50 HMU OHs after effective date of this AD.

(ii) For HMUs that have accumulated 150 or fewer OHs since new or since last overhaul, before exceeding 200 HMU OHs.

(g) Initial Visual Inspection for HMUs That Have Been Previously Inspected

(1) On the effective date of this AD, for those HMUs that have been previously inspected per Turbomeca MSB No. SB 319 73 2825, Version G, dated January 24, 2013, or earlier versions; perform a visual inspection of HMU aft splines of the high pressure pump for wear, corrosion, scaling, or cracks, and clean and inspect the sleeve assembly splines for wear, corrosion, scaling, or cracks, at the following:

(i) For HMUs that have accumulated 300 OHs or more since last inspection, within 200 HMU OHs after effective date of this AD.

(ii) For HMUs that have accumulated fewer than 300 OHs since last inspection, before exceeding 500 HMU OHs.

(h) Repetitive Visual Inspections of HMUs

(1) Thereafter, repetitively visually inspect the HMU aft splines of the high pressure pump, and clean and inspect the sleeve assembly splines for wear, corrosion, scaling, or cracks, at intervals not to exceed 500 HMU OHs.

(2) If, during any initial or repetitive inspection required by this AD, an HMU does not pass inspection, then before further flight, replace the sleeve assembly on the affected high pressure pump drive gear shaft or replace the affected HMU.

(i) Installation Prohibition

After the effective date of this AD, do not install any engine on any helicopter unless the HMU was inspected as required by this AD.

(j) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(k) Related Information

(1) For more information about this AD, contact Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; email: frederick.zink@faa.gov; phone: 781-238-7779; fax: 781-238-7199.

(2) Refer to European Aviation Safety Agency, AD 2013-0082, dated April 2, 2013, for more information. You may examine the AD on the Internet at <http://www.regulations.gov>.

(3) Turbomeca MSB No. SB 319 73 2825, Version G, dated January 24, 2013, which is not incorporated by reference in this AD, can be obtained from Turbomeca, S.A. using the contact information in paragraph (k)(4) of this AD.

(4) For service information identified in this AD, contact Turbomeca, S.A., 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15.

(5) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on July 18, 2013.

Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

[FR Doc. 2013-17864 Filed 07/24/2013 at 8:45 am; Publication Date: 07/25/2013]